



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/414,996 | 10/07/1999 | CHARLES SLATER | CISCO-1341 | 4137 |

7590 11/04/2003

DAVID B RITCHIE
D'ALESSANDRO AND RITCHIE
P O BOX 640640
SAN JOSE, CA 951640640

| |
|----------|
| EXAMINER |
|----------|

FOX, JAMAL A

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2664

DATE MAILED: 11/04/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/414,996

Applicant(s)

SLATER, CHARLES

Examiner

Jamal A Fox

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 10 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 4-6, 14, 15 and 18-21 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8, 9, 16 and 17 is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 10-13 and 22-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s) 15.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 23, 28, 31, 35, 40, 43, and 44 are objected to because of the following informalities: The word "reply" is spelled incorrectly. The claims have the word "reply" spelled as "replay". Appropriate correction is required.

Response to Arguments

2. Applicant's arguments with respect to claims 1-3, 7, 10-13 and 22-44 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

3. Claims 8-9 and 16-17 are allowed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 7, 22-27 and 32-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sidhu et al. in view of Callon et al. Referring to claim 1, Sidhu et al. discloses a method for detecting the path to a first network device (col. 7 lines 25-48), said method comprising: receiving a data packet from a second network device, the data packet containing a hop count

(col. 13 lines 37-48), a destination Ethernet corresponding to the first network device (col. 7 lines 25-48), and a source Ethernet address corresponding to the second network device (col. 7 lines 25-48); determining at least one port on a network device receiving the data packet, by examining the destination Ethernet address (col. 13 lines 8-27); and forwarding the modified packet through the at least one port (col. 13 lines 20-27), but does not teach of decrementing the hop count by one to form a modified data packet. Callon et al. teaches of decrementing the hop count by one to form a modified data packet (col. 49 line 66-col. 50 line 2). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the decrementing of the hop count of Callon et al. to the invention of Sidhu et al. in order to provide lifetime control of the packet as suggested by Callon et al.

Referring to claim 2, Sidhu et al. discloses the method in accordance with claim 1, wherein the modified data packet is not forwarded if the destination Ethernet address is the same as the Ethernet address of the network device receiving the data packet (col. 13 lines 15-28). According to Sidhu et al., if the packet has not been forwarded then the node ID is directly accessible through one of its ports therefore it could have the same Ethernet address as the network device receiving the data packet.

Referring to claim 3, Sidhu et al. discloses a method for detecting a path to a first network device (col. 7 lines 25-48), comprising: transmitting from a second network device, the data packet containing a hop count (col. 13 lines 37-48), a destination Ethernet address corresponding to the first network device (col. 7 lines 25-48), and a source Ethernet address corresponding to the second network device (col. 7 lines 25-48); receiving the data packet at a third network device (this is inherent because the number of hops or internet routers a packet

may traverse in the preferred embodiment is limited to 16 see col. 13 lines 46-48); determining at least one port on the third network device by examining the destination Ethernet address (col. 13 lines 8-27); and forwarding the modified data packet from the third network device through the at least one port (col. 13 lines 20-27), but does not teach of decrementing the hop count by one to form a modified data packet. Callon et al. teaches of decrementing the hop count by one to form a modified data packet (col. 49 line 66-col. 50 line 2). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the decrementing of the hop count of Callon et al. to the invention of Sidhu et al. in order to provide lifetime control of the packet as suggested by Callon et al.

Referring to claim 7, Sidhu et al. discloses a program storage device (Fig. 2) readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for detecting a path to a first network device (Fig. 8, reference sign 102), the method comprising: receiving a data packet from a second network device, the data packet containing a hop count (col. 13 lines 20-27), a destination Ethernet address corresponding to the first network device (col. 7 lines 25-48), and a source Ethernet address corresponding to the second network device (col. 7 lines 25-48); determining at least one port on a network device receiving the data packet, by examining the destination Ethernet address (col. 13 lines 8-27); and forwarding the modified data packet from the network device through the at least one port (col. 13 lines 20-27), but fails to teach of decrementing the hop count by one to form a modified data packet. Callon et al. teaches of decrementing the hop count by one to form a modified data packet (col. 49 line 66-col. 50 line 2). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the decrementing of the hop count of Callon et

al. to the invention of Sidhu et al. in order to provide lifetime control of the packet as suggested by Callon et al.

Referring to claim 22, Sidhu et al. discloses a method of examining the hop count in the received data packet (inherent because it has to be done in order for an action to occur based on the hop count), transmitting a reply data packet toward the source Ethernet address if the received hop count is one (the transmission of the reply data packet toward the source Ethernet address can be done with any value that the hop count is set (see col. 13 lines 46-48)).

Referring to claim 23, Sidhu et al. discloses a method wherein the reply data packet includes: a destination Ethernet address corresponding to the second network address (Fig. 3 and respective portions of the specification); and a source Ethernet address corresponding to the network device transmitting the reply data packet (Fig. 3 and respective portions of the specification).

Referring to claim 24, Sidhu et al. discloses the method in accordance with claim 1, but does not explicitly teach of repeating said receiving, said decrementing, said determining, and said forwarding until the hop count in the data packet received at a network device becomes one. Callon et al. teaches of decrementing the hop count by one to form a modified data packet (col. 49 line 66-col. 50 line 2). One skilled in the art would recognize that repeating the receiving, decrementing, determining, and forwarding until the hop count in the data packet received at a network device becomes one is obvious because you are performing the actions such as decrementing until you reach a certain value just as though you would increment until you reach a certain value (see Sidhu et al. col. 13 lines 43-49). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the

repeating the receiving, decrementing, determining and forwarding of the hop count of Callon et al. to the invention of Sidhu et al. in order to provide lifetime control of the packet as suggested by Callon et al.

Referring to claim 25, Sidhu et al. discloses the method wherein said determining includes: looking up an address table maintaining an association between Ethernet addresses and corresponding ports on the network device (see the Address Mapping Table col. 10 lines 9-36, the routing table col. 13 lines 8-28 and col. 14 lines 38-64, and the Hash Table col. 15 line 61-col. 16 line 15).

Referring to claim 26, Sidhu et al. in view of Callon et al. discloses the method in accordance to claim 1, but does not explicitly teach of the modified data packet being forwarded through all of the ports on the network device if the destination Ethernet address is unknown. One skilled in the art would recognize that a default port could be set. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the modified data packet being forwarded through all of the ports on the network device if the destination Ethernet address is unknown because the default port could be set to all of the ports.

Referring to claim 27, Sidhu et al. discloses the data packet being included in a data field of an Ethernet frame (see Figure 3 reference signs 301, 302, 308 and 359).

Referring to claim 32, Sidhu et al. discloses an apparatus for detecting the path to a first network device (col. 7 lines 25-48), said apparatus comprising: means for receiving a data packet from a second network device, the data packet containing a hop count (col. 13 lines 37-48), a destination Ethernet address corresponding to the second network device (col. 7 lines 25-

48); means for determining at least one port on a network device receiving the data packet, by examining the destination Ethernet address (col. 13 lines 8-27); and means for forwarding the modified data packet through the at least one port (col. 13 lines 20-27), but does not teach of decrementing the hop count by one to form a modified data packet. Callon et al. teaches of decrementing the hop count by one to form a modified data packet (col. 49 line 66-col. 50 line 2). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the decrementing of the hop count of Callon et al. to the invention of Sidhu et al. in order to provide lifetime control of the packet as suggested by Callon et al.

Referring to claim 33, Sidhu et al. discloses the apparatus in accordance with claim 32, wherein the modified data packet is not forwarded if the destination Ethernet address is the same as the Ethernet address of the network device receiving the data packet (col. 13 lines 15-28). According to Sidhu et al., if the packet has not been forwarded then the node ID is directly accessible through one of its ports therefore it could have the same Ethernet address as the network device receiving the data packet.

Referring to claim 34, Sidhu et al. discloses a means for examining the hop count in the received data packet (inherent because it has to be done in order for an action is to occur based on the hop count), a means for transmitting a reply data packet toward the source Ethernet address if the received hop count is one (the transmission of the reply data packet toward the source Ethernet address can be done with any value that the hop count is set (see col. 13 lines 46-48)).

Referring to claim 35, Sidhu et al. discloses the apparatus wherein the reply data packet includes: a destination Ethernet address corresponding to the second network address (Fig. 3 and respective portions of the specification); and a source Ethernet address corresponding to the network device transmitting the reply data packet (Fig. 3 and respective portions of the specification).

Referring to claim 36, Sidhu et al. discloses the apparatus in accordance with claim 32, but does not explicitly teach of the means for repeating said receiving, said decrementing, said determining, and said forwarding until the hop count in the data packet received at a network device becomes one. Callon et al. teaches of decrementing the hop count by one to form a modified data packet (col. 49 line 66-col. 50 line 2). One skilled in the art would recognize that repeating the receiving, decrementing, determining, and forwarding until the hop count in the data packet received at a network device becomes one is obvious because you are performing the actions such as decrementing until you reach a certain value just as though you would increment until you reach a certain value (see Sidhu et al. col. 13 lines 43-49).

Referring to claim 37, Sidhu et al. discloses an apparatus wherein the means for determining includes: means for looking up an address table maintaining an association between Ethernet addresses and corresponding ports on the network device (see the Address Mapping Table col. 10 lines 9-36, the routing table col. 13 lines 8-28 and col. 14 lines 38-64, and the Hash Table col. 15 line 61-col. 16 line 15).

Referring to claim 38, Sidhu et al. in view of Callon et al. discloses the apparatus in accordance with claim 32, but does not explicitly teach of the modified data packet being forwarded through all of the ports on the network device if the destination Ethernet address is

unknown. One skilled in the art would recognize that a default port could be set. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the modified data packet being forwarded through all of the ports on the network device if the destination Ethernet address is unknown because the default port could be set to all of the ports.

Referring to claim 39, Sidhu et al. discloses the data packet being included in a data field of an Ethernet frame (see Figure 3 reference signs 301, 302, 308 and 359).

Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sidhu et al. in view of Callon et al. in further view of Kracht. Referring to claim 10, Sidhu et al. in view of Callon et al. discloses the method in accordance with claim 1, but does not teach of the network device being a LAN switch. Kracht discloses a network device being a LAN switch in (Fig. 1). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the network device as a LAN switch to Sidhu et al. in view of Callon et al. in order to improve bandwidth by separating collision domains and selectively forwarding traffic to appropriate segments.

Referring to claim 11, Sidhu et al. in view of Callon et al. discloses the method in accordance with claim 3, but does not teach of the first network device being a LAN switch. Kracht discloses the first network device being a LAN switch in (Fig. 1). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the first network device as a LAN switch to Sidhu et al. in view of Callon et al. in order to improve bandwidth by separating collision domains and selectively forwarding traffic to appropriate segments.

Referring to claim 12, Sidhu et al. in view of Callon et al. discloses the method in accordance with claim 3, but does not teach of the second network device being a LAN switch. Kracht discloses the second network device being a LAN switch in (Fig. 1). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the second network device as a LAN switch to Sidhu et al. in view of Callon et al. in order to improve bandwidth by separating collision domains and selectively forwarding traffic to appropriate segments.

Referring to claim 13, Sidhu et al. in view of Callon et al. discloses the method in accordance with claim 3, but does not teach of the third network device being a LAN switch. Kracht discloses the third network device being a LAN switch in (Fig. 1). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the third network device as a LAN switch to Sidhu et al. in view of Callon et al. in order to improve bandwidth by separating collision domains and selectively forwarding traffic to appropriate segments.

Claims 28-31 and 40-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Behaghel et al. in view of Sidhu et al. Referring to claim 28, Behaghel et al. discloses a method for detecting the path to a desired network device (col. 1 lines 25-47), said method comprising: setting a hop count at an initial value (this is inherent, you have to have an initial starting point); generating a probe data packet containing the hop count (Fig. 2 reference sign RIF and respective portions of the specification, the RIF is the equivalent to the hop count), a destination Ethernet address corresponding to the desired network device (Fig. 2, reference sign AD and respective portions of the specification), and a source Ethernet address corresponding to a source network

device sending the probe data packet (Fig. 2, reference sign AS and respective portions of the specification); transmitting the probe data packet (col. 5 lines 18-25); receiving a reply data packet from a network device which received the probe data packet containing the hop count one (col. 5 lines 55-59), the reply data packet containing a reply destination Ethernet address corresponding to the source network device and a reply source Ethernet address corresponding to the network device sending the reply data packet (col. 5 lines 55-63), but does not teach of determining if the reply source Ethernet address is the same as the destination Ethernet address of the desired network device; incrementing the hop count by one if the reply source Ethernet address is different from the destination Ethernet address of the desired network device; and repeating said generating, said transmitting, said receiving, said determining, and said incrementing, until receiving a reply data packet containing a reply source Ethernet address which is the same as the destination Ethernet address of the desired network device. Sidhu et al. teaches of the reply source Ethernet address is the same as the destination Ethernet address of the desired network device (col. 7 lines 25-48); incrementing the hop count by one if the reply source Ethernet address is different from the destination Ethernet address of the desired network device (col. 13 lines 37-38, the packet increments by one as it traverses each router having different Ethernet addresses); and repeating said generating, said transmitting, said receiving, said determining, and said incrementing, until receiving a reply data packet containing a reply source Ethernet address which is the same as the destination Ethernet address of the desired network device. One skilled in the art would recognize that repeating the generating, transmitting, receiving, determining and incrementing, until receiving a reply data packet containing a reply source Ethernet address is obvious because you are performing the actions

such as incrementing until you reach a certain value (see Sidhu et al. col. 13 lines 43-49).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the invention of Sidhu et al. to the invention Behaghel et al. in order to allow for the transfer of data packets to valid Ethernet addresses in the communication system as suggested by Sidhu et al.

Referring to claim 29, Behaghel et al. discloses the initial value being one (col. 4 lines 3-4). The RIF can have a maximum of 18 octets, therefore one skilled in the art would recognize that the initial value could be one.

Referring to claim 30, Behaghel et al. discloses a method wherein a network device receives a probe data packet (Fig. 2 reference sign RIF and respective portions of the specification), and Sidhu et al. discloses a method wherein a network device receives a probe data packet (Fig. 6) but they don't teach of decrementing the hop count by one before forwarding the probe data packet to another network device. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include decrementing the hop count by one before forwarding the probe data packet to another network device because it doesn't matter whether you increment or decrement the hop count from an initial value the result will be the same.

Referring to claim 31, Sidhu et al. discloses storing information of the network device from which the reply data packet is received (col. 2 lines 5-62).

Referring to claim 40, Behaghel et al. discloses an apparatus for detecting the path to a desired network device (col. 1 lines 25-47), said apparatus comprising: means for setting a hop count at an initial value (this is inherent, you have to have an initial starting point); means for

Art Unit: 2664

generating a probe data packet containing the hop count (Fig. 2 reference sign RIF and respective portions of the specification, the RIF is the equivalent to the hop count), a destination Ethernet address corresponding to the desired network device (Fig. 2, reference sign AD and respective portions of the specification), and a source Ethernet address corresponding to a source network device sending the probe data packet (Fig. 2, reference sign AS and respective portions of the specification); means for transmitting the probe data packet (col. 5 lines 18-25); means for receiving a reply data packet from a network device which received the probe data packet containing the hop count one, the reply data packet containing a reply destination Ethernet address corresponding to the source network device and a reply source Ethernet address corresponding to the network device sending the reply data packet (col. 5 lines 55-59), but does not teach of a means for determining if the reply source Ethernet address is the same as the destination Ethernet address of the desired network device; means for incrementing the hop count by one if the reply source Ethernet address is different from the destination Ethernet address of the desired network device; and means for repeating said generating, said transmitting, said receiving, said determining, and said incrementing, until receiving a reply data packet containing a reply source Ethernet address which is the same as the destination Ethernet address of the desired network device. Sidhu et al. teaches of a means for determining if the reply source Ethernet address is the same as the destination Ethernet address of the desired network device (col. 7 lines 25-48); means for incrementing the hop count by one if the reply source Ethernet address is different from the destination Ethernet address of the desired network device (col. 13 lines 37-38, the packet increments by one as it traverses each router having different Ethernet addresses); and means for repeating said generating, said transmitting, said

receiving, said determining, and said incrementing, until receiving a reply data packet containing a reply source Ethernet address which is the same as the destination Ethernet address of the desired network device. One skilled in the art would recognize that repeating the generating, transmitting, receiving, determining and incrementing, until receiving a reply data packet containing a reply source Ethernet address which is the same as the destination Ethernet address of the desired network device is obvious because you are performing the actions such as incrementing until you reach a certain value (see Sidhu et al. col. 13 lines 43-49). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the invention of Sidhu et al. to the invention Behaghel et al. in order to allow for the transfer of data packets to valid Ethernet addresses in the communication system as suggested by Sidhu et al.

Referring to claim 41, Behaghel et al. discloses an apparatus where the initial value is one (col. 4 lines 3-4). The RIF can have a maximum of 18 octets, therefore one skilled in the art would recognize that the initial value could be one.

Referring to claim 42, Sidhu et al. discloses an apparatus wherein it receives a probe data packet (Fig. 6), and Behaghel et al. discloses an apparatus wherein it receives a probe data packet (Fig. 2 reference sign RIF and respective portions of the specification) but they don't teach of decrementing the hop count by one before forwarding the probe data packet to another network device. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include decrementing the hop count by one before forwarding the probe data packet to another network device because it doesn't matter whether you increment or decrement the hop count from an initial value the result will be the same.

Referring to claim 43, Sidhu et al. discloses the means for storing information of the network device from which the reply data packet is received (col. 2 lines 5-62).

Referring to claim 44, Behaghel et al. discloses generating a probe data packet containing the hop count (Fig. 2 reference sign RIF and respective portions of the specification, the RIF is the equivalent to the hop count), a destination Ethernet address corresponding to the desired network device (Fig. 2, reference sign AD and respective portions of the specification), and a source Ethernet address corresponding to a source network device sending the probe data packet (Fig. 2, reference sign AS and respective portions of the specification); transmitting the probe data packet (col. 5 lines 18-25); receiving a reply data packet from a network device which received the probe data packet containing the hop count one, the reply data packet containing a reply destination Ethernet address corresponding to the source network device and a reply source Ethernet address corresponding to the network device sending the reply data packet (col. 5 lines 55-59), but does not teach of a program storage device readable by a machine, tangibly embodying a program of instruction executable by the machine to perform a method for detecting the path to a desired network device; determining if the reply source Ethernet address is the same as the destination Ethernet address of the desired network device; incrementing the hop count by one if the reply source Ethernet address is different from the destination Ethernet address of the desired network device; and repeating said generating, said transmitting, said receiving, said determining, and said incrementing, until receiving a reply data packet containing a reply source Ethernet address which is the same as the destination Ethernet address of the desired network device. Sidhu et al. discloses a program storage device (Fig. 2) readable by a machine, tangibly embodying a program of instruction executable by the machine to perform a

method for detecting the path to a desired network device (Fig. 8, reference sign 102), said method comprising: setting a hop count at an initial value (this is inherent, you have to have an initial starting point); determining if the reply source Ethernet address is the same as the destination Ethernet address of the desired network device (col. 7 lines 25-48); incrementing the hop count by one if the reply source Ethernet address is different from the destination Ethernet address of the desired network device (col. 13 lines 37-38, the packet increments by one as it traverses each router having different Ethernet addresses); and repeating said generating, said transmitting, said receiving, said determining, and said incrementing, until receiving a reply data packet containing a reply source Ethernet address which is the same as the destination Ethernet address of the desired network device. One skilled in the art would recognize that repeating the generating, transmitting, receiving, determining and incrementing, until receiving a reply data packet containing a reply source Ethernet address which is the same as the destination Ethernet address of the desired network device is obvious because you are performing the actions such as incrementing until you reach a certain value (see Sidhu et al. col. 13 lines 43-49). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the invention of Sidhu et al. to the invention Behaghel et al. in order to allow for the transfer of data packets to valid Ethernet addresses in the communication system as suggested by Sidhu et al.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. **Any response to this final action should be mailed to:**

Box AF

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications; please mark
"EXPEDITED PROCEDURE")

Or:

(703) 308-5403 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA. 22202, Sixth Floor (Receptionist).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamal A. Fox whose telephone number is (703) 305-5741. The examiner can normally be reached on Monday-Friday 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (703) 305-4366. The fax phone numbers for the

Application/Control Number: 09/414,996
Art Unit: 2664


Page 18

organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

J. A. F.

Jamal A. Fox



WELLINGTON CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600